No. 7400079

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Agripro, Incorporated

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF seventeen YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SOYBEAN

'Agripro 27'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington *this* 30th *day of* October *in the year of our Lord one thousand nine hundred and* seventy-four

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Earl L Butz

Secretary of Agriculture

FORM GR-470
(12-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

FORM APPROVED
OMB NO. 40-R3712

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

1. VARIETY NAME OR TEMPORARY DESIGNATION	2. KIND NAME	FOR OFFICIAL USE ONLY
AGRIPRO 27 (Ex 7710)	Soybean	PV NUMBER 7400079
3. GENUS AND SPECIES NAME	4. FAMILY NAME (Botanical)	FILING DATE 3·26·74 / TIME 9 A.M.
Glycine Max	Leguminosae	FEE RECEIVED $250.00 $250.00 $250.00 / BALANCE DUE $ — $ — $ —
	5. DATE OF DETERMINATION 1972	

6. NAME OF APPLICANT(S)	7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)	8. TELEPHONE AREA CODE AND NUMBER
AGRIPRO, INC.	103 South 16th Street Ames, IA 50010	(515) 232-0691

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.)	10. STATE OF INCORPORATION	11. DATE OF INCORPORATION
Corporation	Iowa	1973

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

~~Dr. Brian J. Moraghan~~ DR. WAYNE ELLINGSON
103 South 16th Street
Ames, IA 50010

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Botanical Description of the Variety
- [X] 13C. Exhibit C, Objective Description of the Variety
- [X] 13D. Exhibit D, Data Indicative of Novelty
- [X] 13E. Exhibit E, Statement of the Basis of Applicant's Ownership

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [ ] YES [X] NO

14B. Does the applicant(s) specify that this variety be limited as to number of generations? [ ] YES [X] NO

14C. If "Yes," to 14B, how many generations of production beyond breeder seed? [ ] FOUNDATION [ ] REGISTERED [ ] CERTIFIED

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

March 20, 1974
(DATE)

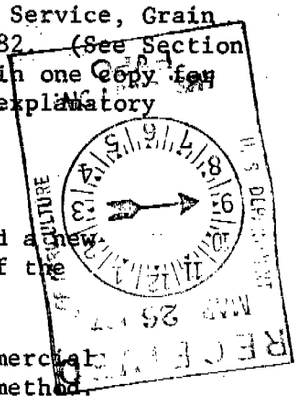
B. J. Moraghan
(SIGNATURE OF APPLICANT)

(DATE)

(SIGNATURE OF APPLICANT)

INSTRUCTIONS

GENERAL: Send an original copy of the application, exhibits and $250.00 fee to U.S. Dept. of Agriculture, Agricultural Marketing Service, Grain Division, 6525 Belcrest Road, Hyattsville, Maryland 20782. (See Section 180.175 of the regulations and rules of practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.



ITEM

5 Insert the date the applicant determined that he had a new variety based on the definition in Section 41 (a) of the Act and decision is made to increase the seed.

13a First, give the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method. Second, give the details of subsequent stages of selection and multiplication. Third, indicate the type and frequency of variants during reproduction and multiplication and state how these variants may be identified. Fourth, provide evidence on stability.

13b First, give any special characteristics of the seed and of the plant as it passes through the seedling stage, flowering stage and the fruiting stage. Second, describe the mature plant and compare it with a similar commercial variety grown under the same conditions, and indicate the differences.

13c A supplemental form will be furnished by the PVPO to describe in detail a variety for each kind of seed.

13d Provide complete data indicative of novelty. Seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty may be submitted. Seeds submitted may be sterile.

13e Indicate whether applicant is the actual breeder, the employer of the breeder, the owner through purchase or inheritance, etc.

EXHIBIT A

ORIGIN AND BREEDING HISTORY OF AGRIPRO 27 (Ex 7710)

The original cross for AGRIPRO 27 (Ex 7710) was made in 1968 between Cutler and Calland. The F1, F2, and F4 generations were advanced in a winter nursery. The F3 generation and F5 plant rows were grown in Iowa. Early generations were advanced by single seed descent. The line 7710 is an F4 derived line. The line was yield tested in 1971, 1972, 1973. In testing, an off-hilum type of .2% yellow hilum and .2% gray pubescence was detected. Several hundred plant rows of Ex 7710 were grown in 1973 and only lines conforming to a standard type were selected. The variety is stable for characteristics of plant type and maturity.

EXHIBIT B

BOTANICAL DESCRIPTION OF THE VARIETY

AGRIPRO 27 (Ex 7710) is a northern, indeterminate soybean variety of maturity group III. It matures a day later than Wayne in Iowa, and it is adapted to areas of the Midwest in which Wayne or Calland are adapted. The flowers are purple and the pubescence tawny. The seed color is yellow and the hilum color black.

AGRIPRO 27 has normal shaped leaves as distinct from "Ovate" or "Narrow" leaf types.

FORM GR-471-1
(3-15-71)

UNITED STATES DEPARTMENT OF AGRICULTURE
CONSUMER AND MARKETING SERVICE
GRAIN DIVISION
HYATTSVILLE, MARYLAND 20782

EXHIBIT C

OBJECTIVE DESCRIPTION OF VARIETY
(SOYBEAN)

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)
AGRIPRO, INC.

ADDRESS (Street and No., or R.F.D. No.; City, State, and ZIP Code)
103 South 16th Street
Ames, IA 50010

FOR OFFICIAL USE ONLY
PVPO NUMBER
137 -

VARIETY NAME OR TEMPORARY DESIGNATION
AGRIPRO 27 (Ex7710)

Place the appropriate number that describes the varietal character of this variety in the boxes below.

SEED SHAPE:
[1] 1 = SPHERICAL 2 = SPHERICAL FLATTENED 3 = ELONGATE 4 = OTHER (Specify)

SEED COAT COLOR:
[1] 1 = YELLOW 2 = GREEN 3 = BROWN 4 = BLACK 5 = OTHER (Specify)

SHADE (Place a zero in box if neither light nor dark):
[1] 1 = LIGHT 2 = DARK

SEED COAT LUSTER:
[1] 1 = DULL 2 = SHINY

SEED SIZE:
[1][9] GRAMS PER 100 SEEDS

HILUM COLOR:
[6] 1 = BUFF 2 = YELLOW 3 = BROWN 4 = GRAY 5 = IMPERFECT BLACK 6 = BLACK 7 = OTHER (Specify)

SHADE (Place a zero in box if neither light nor dark):
[2] 1 = LIGHT 2 = DARK

COTYLEDON COLOR:
[1] 1 = GREEN 2 = YELLOW

LEAFLET SIZE (See Reverse):
[ ] 1 = SMALL 2 = MEDIUM 3 = LARGE

LEAFLET SHAPE:
[5] 1 = OVATE 2 = OBLONG 3 = LANCEOLATE 4 = ELLIPTICAL 5 = OTHER (Specify) NORMAL (versus ovate or narrow)

LEAF COLOR (See Reverse):
[ ] 1 = LIGHT GREEN 2 = MEDIUM GREEN 3 = DARK GREEN

FLOWER COLOR:
[2] 1 = WHITE 2 = PURPLE 3 = OTHER (Specify)

POD COLOR:
[2] 1 = TAN 2 = BROWN 3 = BLACK

POD SET:
[ ] 1 = SCATTERED 2 = CONCENTRATED

PLANT PUBESCENCE COLOR:
[2] 1 = GRAY 2 = BROWN 3 = OTHER (Specify)

SHADE (Place a zero in box if neither light nor dark):
[0] 1 = LIGHT 2 = DARK

PLANT TYPES (See Reverse):
[2] 1 = SLENDER 2 = BUSHY 3 = INTERMEDIATE

PLANT HABIT:
[2] 1 = DETERMINATE 2 = INDETERMINATE 3 = OTHER (Specify)

HYPOCOTYL COLOR:
[ ] 1 = GREEN 2 = PURPLE

SEED PROTEIN:
[ ] 1 = A 2 = B

NUMBER OF DAYS TO FLOWERING (Place a zero in first box (i.e. [0][9]) when days are 9 or less.)
[ ][ ]

MATURITY GROUP:
[5] RIS 1 = 00 2 = 0 3 = I 4 = II 5 = III 6 = IV 7 = V 8 = VI 9 = VII 10 = VIII

DISEASE RESISTANCE TO: (Enter zeros in box(es) where there is no special disease resistance.)

[0] 1 = BACTERIAL PUSTULE [0] 2 = SOYBEAN CYST [0] 3 = DOWNY MILDEW [0] 4 = PURPLE STAIN [0] 5 = POD AND STEM BLIGHT [0] 6 = ROOT KNOT

[0] 7 = FROGEYE [0] 8 = STEM CANKER [1] 9 = PHYTO-PHTHORA [0] 10 = BROWN STEM ROT [0] 11 = TARGET SPOT [0] 12 = BROWN SPOT

[0] 13 = BUD BLIGHT [0] 14 = WILDFIRE [0] 15 = RHIZOCTOMIA ROT [ ] 16 = OTHER (Specify)

SIZE OF 10 DAY OLD SEEDLING GROWN UNDER CONSTANT LIGHT (Growth Chamber) AT 25° C. (Place a zero in box(es) where no number is entered.)

[ ][ ][ ] MM. LENGTH OF SEEDLING

[0][ ][ ] MM. LENGTH OF COTYLEDON

[0][ ][ ] MM. WIDTH OF COTYLEDON

EMERGENCE SCORE = 5

FORM GR-471-1 (REVERSE)

Indicate which variety most closely resembles that submitted.

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant shape	Calland	Leaf carriage	Calland
Leaf shape	Calland	Seed size	Calland
Leaf color	Calland	Seed shape	Calland
Leaf surface	Calland	Seedling pigmentation	Calland

VARIETY	NO. OF DAYS TO MATURITY	LODGING SCORE	PLANT HEIGHT	LEAF SIZE		CONTENT		AVERAGE NO. OF PODS PER PLANT	IODINE NO.
				Width	Length	Protein	Oil		
Submitted							%		
Similar							%		
Name of similar variety									

INSTRUCTIONS

General: The following publications may be used as a reference aid for completing this form.

1. A. G. Norman, 1963, The Soybean, Academic Press, New York - London

Leaf Color:

Color	Varieties
1=Light Green	
2=Medium Green	

Leaf Size: The following varieties may be used as a guide to identify the relative size leaves.

Size	Varieties
1.=Small	
2.=Medium	
3.=Large	

Plant Type: The following varieties may be used as a guide to identify the plant type.

Type	Varieties
1.=Slender	
2.=Intermediate	
3.=Bushy	

EXHIBIT D

DATA INDICATIVE OF NOVELTY

AGRIPRO 27 (Ex 7710) is similar to Calland in pubescence, flower and hilum colors; but it differs in that it is susceptible to Phytophthora megasperma var sojae and it is two days later than Calland in Central Iowa. AGRIPRO 27 is also about six inches shorter than either Wayne or Calland and lodges less than either of these varieties. AGRIPRO 27 has been higher yielding than Wayne or Calland in Iowa Yield Tests. (See attached yield data.)

1971 IVR TESTS
(Average of two locations)

AGRIPRO 27	
~~Ex 7710~~	49.2 bu/a
Beeson	45.2 bu/a
Amsoy	44.1 bu/a
Wayne	46.4 bu/a

1972 IVR TESTS

	Adel #1	Adel #2	Creston	Ave Yield	Mat.	Ldg.
AGRIPRO 27						
~~Ex 7710~~	51.8	49.7	53.7	51.7	9-20	1.8
Beeson	46.6	41.0	46.8	44.8	9-16	1.8
Wayne	46.3	41.2	47.7	45.1	9-23	2.3
Calland	45.2	45.6	50.9	47.2	9-22	2.3

1973 AGRIPRO TESTS

	Washington, IA	Creston, IA	Ave Yield	Mat.	Hgt.	Ldg.
AGRIPRO 27						
~~Ex 7710~~	59.4	50.0	54.8	10-8	41	1.5
Beeson	51.6	43.1	47.4	10-4	39	1.0
Wayne	52.9	48.6	50.8	10-8	45	2.8
Calland	49.3	47.4	48.4	10-8	44	2.0
LSD		5.2				

1973 IOWA STATE YIELD TESTS - CENTRAL
(Average of Three Locations)

	Yield	Mat.	Hgt.	Ldg.	Emerg.	Chlorosis	Seeds Per Lb.
AERIPRO 27 ~~Ex 7710~~	52.8	10-3	40	2.6	5	4	2300
Beeson	48.7	9-26	43	2.8	5	4	2300
Wayne	50.1	10-2	45	3.4	1	5	2400
Calland	48.2	10-1	46	3.2	3	3	2400
LSD	3.0						

1973 IOWA STATE YIELD TESTS - SOUTHERN
(Average of Three Locations)

	Yield	Mat.	Hgt.	Ldg.	Emerg.	Chlorosis	Seeds Per Lb.
AERIPRO 27 ~~Ex 7710~~	43.5	9-28	45	2.4	5	4	2300
Beeson	41.1	9-22	44	3.4	5	4	2300
Wayne	42.5	9-27	50	3.7	1	5	2500
Calland	39.6	9-28	49	3.6	3	3	2600
LSD	2.4						

EXHIBIT E

STATEMENT OF THE BASIS OF APPLICANT'S OWNERSHIP

Improved Variety Research, Inc.

Harry H. Stine
Rt. 3, Adel, Iowa 50003

Dale McCubbin
Rt. 5, Marshalltown, Iowa 50158
Vice President

Willard C. Latham
Alexander, Iowa 50420
Secretary, Treasurer

Harold A. Folkerts
Rt. 2, Allison, Iowa 50602
Director, Equipment Designer

To whom it may concern:

This is to inform you that as of June 1, 1973, the following assets of Improved Variety Research, Inc. have been purchased by Agripro, Inc., according to the terms of a contract:

1. All soybean seed and genetic and research materials, processes and formulae owned, used or developed by IVR wherever situated, whether in the form of seed stocks, growing plants, or genetic materials.

2. All records and memoranda used or maintained in connection with breeding, testing, increasing or any other phase of the soybean seed breeding program.

3. All contracts, agreements, leases and rights in connection with breeding, increasing, testing, marketing and producing soybean seed strains, varieties or brands, including variety protection rights.

4. All equipment, supplies, and materials including tractors, trucks, planters, cultivators, threshers, seed bags, office equipment.

5. The brand or trade name IVR and its good will.

Sincerely,

Willard C. Latham

Willard C. Latham, Secretary-Treasurer
Improved Variety Research, Inc.